

5/20

<b>DART AEROSPACE LTD</b>	<b>Work Order:</b>	22958
<b>Description:</b> Blade	<b>Part Number:</b>	D2741
04.03.03 <del>UP</del>		
<b>Drawing:</b> D2741 Rev. B2	<b>Qty:</b>	20

Step	Location	Procedure	By	Date	Qty
1	EXPEDITING	Issue Work Order	MA	05.04.13	20
2	METAL	Cut blanks 13.850" long +0.063" -0.000" Material: 4130 steel bar 0.50" x 3.00" Batch: M17494	MA	05.05.09	20
3	CNC CELL	Machine per folio FA108	MA	05.05.12	20
4	QC	Inspect Level 2	MA	05.05.12	20
5	QC	Inspect Level 8	MA	05.05.12	20
6	METAL	Deburr	MA	05.05.12	20
7A	METAL	Bend per Dwg D2741	MA	05.06.27	20
8	QC	Inspect Level 5	MA	05.06.27	20
9	PURCHASING	Issue P/O: 208304 Harden material as per Dwg D2741 Min. Ultimate Tensile Strength = 152 ksi (34-40 HRC) Min. Yield Tensile Strength = 141 ksi <b>Test report or Certification required</b>	MA	05.07.05	20
10	RECEIVING	Receive and inspect for transit damage <b>Ensure Test report or Certification attached</b>	MA	05/07/22	20
11	QC	Inspect Level 5	MA	05.08.04	20
12	FINISHING	Powder Coat White (Ref. 4.3.5.2) per QSI 005 4.3	MA	05.08.10	10
13	QC	Inspect Level 3	MA	05.08.10	20
14	STORES	Identify and stock	MA	05.08.10	20
15	EXPEDITING	Close W/O Cost / part 56.52 sat 05/08/11 (20) 5.6.55	MA	05/08/11	20

Rev	Date	Change	Revised By	Approved
A	98.09.10	New Issue	DS/CP	
B	99.03.22	Material hardened after counterbore	DM	
C	00.11.01	Removed P/O for Powder Coat - in house process	EC	
D	00.11.15	Removed P/O turning - in house process	EC	

FB	GA	Grind out machine marks	SAD	05/06/27	20
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RELEASED

EC 00.11.20

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Design Mgr	Approval QC Inspector
			Initial Design Mgr	Action Description Design Mgr	Sign & Date			
		1 blank cut .025" too short. Did not machine the ends.	UP 05.05.13	PART OK per attached email Buff rough end.	SD 08.05.12	2 05-06-27	AB 05-06-27	2 05-06-27
	<del>1</del>							

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☐ No ☒ DQA: ☒ Date: 05/09/11

NOTE: Date &amp; initial all entries

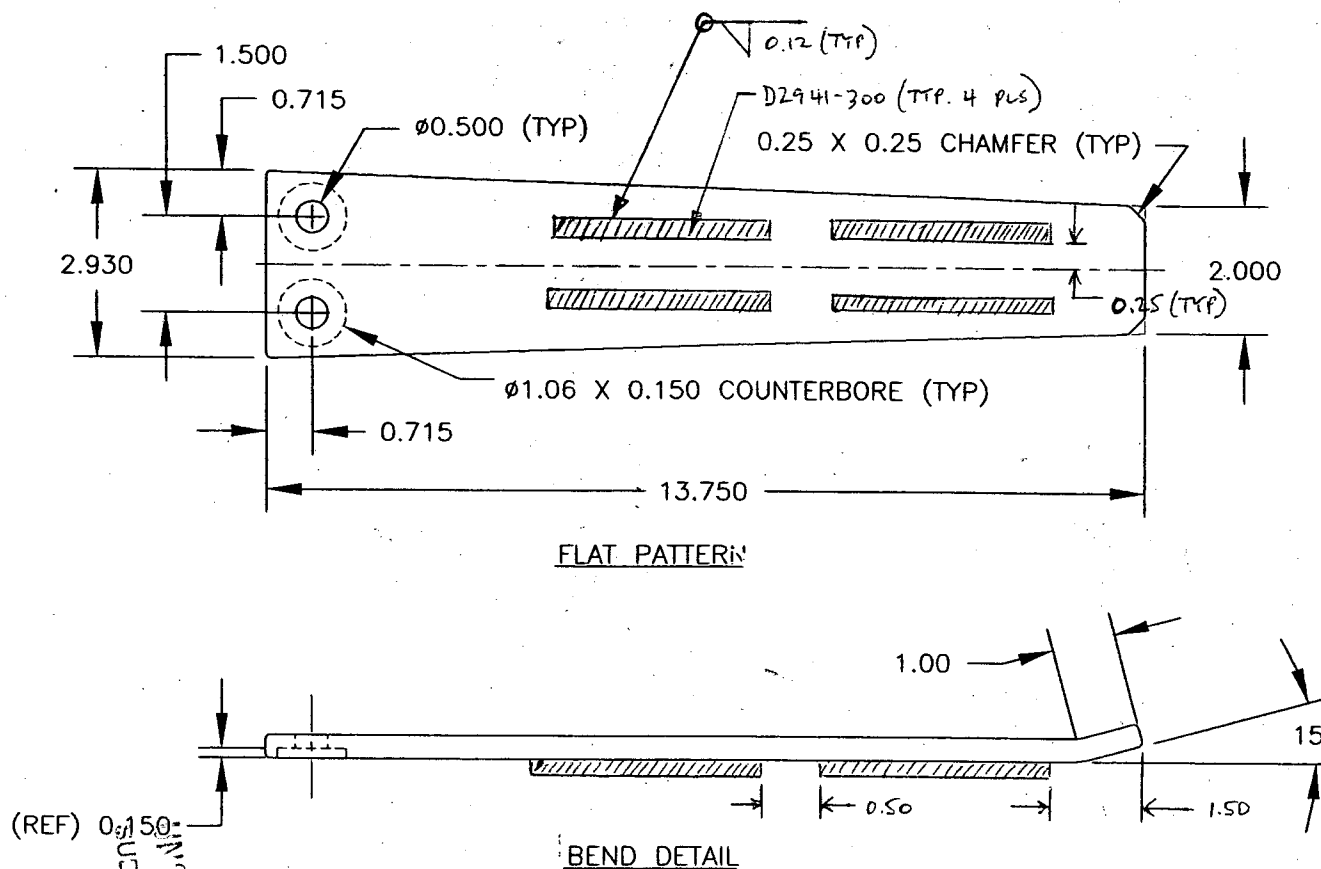
QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_





95-11-03 15

DESIGNED BY <del>111</del>	DRAWN BY <del>111</del>	DART AEROSPACE USA, INC. FAIRCHILD INTERNATIONAL AIRPORT, MA	
CHECKED <del>111</del>	APPROVED <del>111</del>	DRAWING NO. D2741	REV. B
DATE 98.09.01		TITLE BLADE	SHEET 1 OF 1
A	98.04.16	NEW ISSUE	SCALE 1:3
B	98.09.01	CHANGE C'SINK TO C'BORE	
B1	01.01.31	ADD 2941-041-043 OPENS	
B2	01.02.25	ADD ROCKWELL HARDNESS	



MATERIAL: AISI 4130 STEEL 0.375 THICK  
MIN. ULTIMATE TENSILE STRENGTH = 152 ksi (34-40 HRC)  
MIN. YIELD TENSILE STRENGTH = 141 ksi

FINISH: POWDER COAT WHITE (REF. 4.3.5.2) PER DART QSI 005 4.3  
TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED  
BREAK ALL SHARP EDGES 0.030 TO 0.060.


#01.01.31  
U01.01.2 { TO MAKE D2741-041, WELD 2941-300 (4) AS SHOWN ABOVE. REMOVE POWDER  
COAT FROM SURFACE OF D2941-300  
TO MAKE D2741-043, WELD 7560 HARDCOAT ROD INSTEAD OF D2941-300

(REF) 00150  
 SHOP COPY  
 RETURN TO  
 ENGINEERING  
 SUBJECT TO DOCUMENT  
 WITHOUT NOTICE  
 WORK ORDER  
 22458

WIC ORDER

7

2295b

 ~~01.02.25~~  
01.02.26



# Job Costing Report

Dart Aerospace Ltd.  
Hawkesbury

Apr 11, 2005

07:31 am

Work Order No : 0022958  
Project Name : D2741  
Project For : WK520  
Work Order Type : Main  
Main WO Number :  
House Part Number : D2741  
Description : Blade  
Manufactured : Yes  
Amount Req'd : 20  
Amount Done : 0  
Start Date : 04-08-05  
Est Finish Date : 05-15-05  
Act Finish Date :  
Drawings Req'd : No  
Ok for Approval :  
Approval Rec'd :

Department Code:  
Burden Flags : NNNNNNN  
WO Status : Open  
Invoice State : Not Invoiced  
Invoice Date :  
Invoice Number :  
Invoice Amount : 0.00

Order Entry No :  
OE Value : 0.00

Est Mark Up : 0.000%  
Actual Mark Up : 0.000%

\$0 Posted to Finished Goods

	Estimated	Actual	Var. %	Posted	To Post
Material Cost :	0.00	0.00	0.00	0.00	0.00
Engineering Hours :	0.00	0.00	0.00		
Engineering Cost :	0.00	0.00	0.00	0.00	0.00
Production Hours :	0.00	0.00	0.00		
Production Cost :	0.00	0.00	0.00	0.00	0.00
Packaging Hours :	0.00	0.00	0.00		
Packaging Cost :	0.00	0.00	0.00	0.00	0.00
OverHead Hours :	0.00	0.00	0.00		
OverHead Cost :	0.00	0.00	0.00	0.00	0.00
CNC Hours :	0.00	0.00	0.00		
CNC :	0.00	0.00	0.00	0.00	0.00
Misc. Hours :	0.00	0.00	0.00		
Misc. :	0.00	0.00	0.00	0.00	0.00
Burden :	0.00	0.00	0.00		
Total Cost :	0.00	0.00	0.00		
Mark up :	0.000	0.000			
Selling Cost :	0.00	0.00			

	Estimated	Actual
Labour Hrs/Amount Done :	0.00	0.00
Profits/(Loss) :	0.00	0.00

**Chris Provencal**

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**From:** "David Shepherd" <davids@dartaero.com>  
**To:** "Chris Provencal" <chrisp@dartaero.com>  
**Sent:** May 13, 2005 1:50 PM  
**Subject:** Re: 350 blade fitting

Overall length of 13.70" (instead of 13.750) is acceptable for this part.  
Distance to holes of 0.665" (instead of 0.715) is acceptable for this part.  
Attach copy of this email to work order.

David

----- Original Message -----

**From:** Chris Provencal  
**To:** David Shepherd  
**Sent:** Friday, May 13, 2005 11:45 AM  
**Subject:** 350 blade fitting

Sincerely,  
**Chris Provencal**  
**DART Aerospace Ltd.**  
Email...[chrisp@dartaero.com](mailto:chrisp@dartaero.com)  
Phone...613-632-3336  
Fax.....613-632-4443

13/05/2005







**VAC AERO**  
INTERNATIONAL INC.

# PACKING SLIP

OAK 66350-1



**HEAD OFFICE**

1371 SPEERS ROAD, OAKVILLE, ONTARIO  
CANADA L6L 2X5  
TEL: (905) 827-4171 FAX: (905) 827-7489



**QUEBEC DIVISION**

7450 RUE VÉRITÉ STREET, ST. LAURENT, QUÉBEC  
CANADA H4S 1C5  
TEL: (514) 334-4240 FAX: (514) 334-6269

GST No. : R105468102

07/19/2005

MM / DD / YYYY

PAGE : 1

BILL TO: 1DAR01.  
DART AEROSPACE LTD.  
1270 ABERDEEN ST.  
HAWKESBURY, ON

SHIP TO: DART AEROSPACE LTD.  
1270 ABERDEEN ST.  
HAWKESBURY, ON

K6A 1K7

K6A 1K7

DATE SHIPPED	SHIP VIA	F.O.B.
07/19/2005		ORIGIN
CUSTOMER P/O No.	JOB No.	TERMS
2008304		COD

LN	PART NO	DESCRIPTION	UOM	QTY ORDERED	QTY SHIPPED	B/O QTY
01	D2741	BLADE	EA	39	39	0
		Process Specifications: HARDENED PER DWG. D2741 TO 152 KSI MINIMUM HRC 34-40 MATERIAL: 4130  B22958, 19 PCS B23614, 20 PCS				
02	LC	LOT CHARGE		1	1	0

No claims for shortage in weight or count will be entertained, unless presented within 5 working days after receipt of materials by customer.



VACUUM BRAZING · HEAT TREATING · SPECIAL PROCESSING · FURNACE EQUIPMENT  
TURBINE COMPONENT OVERHAUL · PLASMA AND OTHER COATINGS

